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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,678	07/30/2003	Junji Kunisawa	2003_1074	6560
513	7590	12/06/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			PERRIN, JOSEPH L	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			1746	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/629,678	<b>Applicant(s)</b> KUNISAWA ET AL.	
	<b>Examiner</b> Joseph L. Perrin, Ph.D.	<b>Art Unit</b> 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 1 & 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. In view of applicant's amendment filed 29 October 2004, the status of the application is as follows:

#### *35 U.S.C. §102(b) Rejections over Yamagata & Toyokura*

The rejection of claims 1 & 5-7 are maintained for reasons set forth below.

Applicant argues the prior art references do not disclose or suggest "a holder and a vacuum suction member that, with a substrate, define a space which can be purged by blowing N<sub>2</sub> gas therein so that etchant is prohibited from entering into the space during [processing] of the substrate." This is not persuasive because applicant's added limitation is directed to intended use rather than structure, intended use being given little patentable weight in apparatus claims. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Since both Yamagata & Toyokura each "define a space", the space being fluidly sealed with respect to the space outside the holder, the position is taken that the structure of the references read on the structural limitations of the apparatus as claimed.

#### *35 U.S.C. §103(a) Rejections over Yamagata in view of Sekine*

The rejection of claim 8 is maintained for reasons of same set forth above.

***Claim Objections***

2. Claim 1 is objected to because of the following informalities: In line 8, there appears to be a typographical error. The term "precessing" should be "processing". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1 & 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,951,833 to Yamagata. Re claim 1, Yamagata discloses a substrate holding unit with a holding plate (102) and vacuum suction members (104) contacting only the outer periphery of the substrate (101), thereby defining "a space" sealed from one side of the substrate (see, for instance, col. 10, line 54 - col. 11, line 30; Figure 1). Re claim 5, Yamagata further discloses the holding unit in combination with a surface processing unit (anodizing apparatus, see, col. 2, line 56 *et seq.*). Re claim 6, Yamagata further discloses using the holding unit and surface processing unit with a cleaning apparatus and/or a drying apparatus (see, col. 4, lines 1-6). Re claim 7, Yamagata further discloses using a dipping bath (see, col. 7, line 21, as well as Figure 1 and relative associated text).

Recitation of Yamagata reads on applicant's claimed invention.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 03242919 to Toyokura *et al.* (hereinafter "Toyokura"). Toyokura discloses (for instance, in Figure 7 and relative associated text) a substrate holding unit

Art Unit: 1746

including a holding plate (8) and a vacuum suction member (12) contacting only the outer periphery of the wafer, thereby defining "a space" sealed from one side of the substrate. Recitation of Toyokura reads on applicant's claimed invention.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagata in view of US 5,660,744 to Sekine *et al.* (hereinafter "Sekine").

Recitation of Yamagata is repeated here from above. Although Yamagata does disclose etching a substrate in surface processing of a substrate (see, for instance, col. 10, lines 36-38), Yamagata does not disclose using an evaluation unit operable to check a condition of the surface of the substrate after processing to determine a resultant condition. Sekine teaches that it is known to provide a substrate processing apparatus, particularly an etching apparatus, with an evaluation unit (laser detector 51) to "measure etching depth" of the surface of a processed wafer (see, for instance, col. 20, lines 59-61). Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the substrate processing apparatus of Yamagata, which discloses etching, with the evaluation unit for detecting etching depth resultant from an etching process as disclosed by Sekine, for the purpose of more accurately achieving the desired degree of processing on a substrate.

***Allowable Subject Matter***

8. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or suggest the claimed holder plate having a purging aperture for blowing N<sub>2</sub> gas into the space defined by the holder plate, vacuum suction member, and the substrate.

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
11. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone

Art Unit: 1746

number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph L. Perrin, Ph.D.  
Examiner  
Art Unit 1746



jlp